

cofc

09/550103



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application : Richard C. Deth  
Patent No. : 6,773,892  
Issued : August 10, 2004  
For : METHODS OF IDENTIFYING AND DETERMINING  
THE EFFECTIVENESS OF THERAPEUTIC  
PROCESSES OR AGENTS FOR THE TREATMENT  
OF SCHIZOPHRENIA AND RELATED DISORDERS  
Attorney's Docket : NU-431AX

\* \* \* \* \*  
I hereby certify that this correspondence is being deposited  
with the United States Postal Service as first class mail in an  
envelope addressed to: ATTN: Certificates of Correction  
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450  
on July 21, 2005.

By: Holliday C. Heine  
Holliday C. Heine, Ph.D.  
Registration No. 34,346  
Attorney of Record

\* \* \* \* \*

L E T T E R

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
ATTN: Certificates of Correction

**Certificate**  
**JUL 28 2005**  
of Correction

Sir:

Enclosed are two completed copies of Form PTO 1050. It is  
requested that a Certificate of Correction be issued to correct  
the mistakes of the Patent Office in the printing of the above-  
identified patent.

JUL 29 2005

In order for timely expedition of this request, enclosed is a copy of the Notice of Allowance received from the Patent Office dated March 31, 2004. The Notice indicates the Examiner's Amendment to original claim 5, now indicated as claim 1. Also enclosed is a copy of our Submission of Sequence Listing dated August 22, 2001 which indicated that a computer readable form (CFR) copy of the Sequence Listing and a paper copy of the Sequence Listing was filed with the Patent and Trademark Office.

Respectfully submitted,

RICHARD C. DETH

By: Holliday C. Heine  
Holliday C. Heine, Ph.D.  
Registration No. 34,346  
Attorney of Record

WEINGARTEN, SCHURGIN,  
GAGNEBIN & LEBOVICI LLP  
Ten Post Office Square  
Boston, Massachusetts 02109  
Telephone: (617) 542-2290  
Telecopier: (617) 451-0313

HCH/doc  
Enclosures  
324102

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UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTIONPATENT NO : 6,773,892  
DATED : August 10, 2004  
INVENTOR(S) : Richard C. Deth

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 4, line 21, "G<sub>5</sub>" should read --G<sub>s</sub>--;

Column 10, after line 2, please insert the Sequence Listing as follows:

## SEQUENCE LISTING

&lt;110&gt; Deth, Richard C.

<120> METHODS OF IDENTIFYING AND DETERMINING  
THE EFFECTIVENESS OF THERAPEUTIC PROCESSES OR AGENTS FOR THE  
TREATMENT OF SCHIZOPHRENIA AND RELATED DISORDERS

&lt;130&gt; NU-431AX

&lt;140&gt; 09/550,103

&lt;141&gt; 2000-04-14

&lt;150&gt; 08/833,703

&lt;151&gt; 1997-08-08

&lt;160&gt; 1

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 387

&lt;212&gt; PRT

&lt;213&gt; Homo sapien.

## MAILING ADDRESS OF SENDER:

Weingarten, Schurgin, Gagnebin & Lebovici LLP  
Ten Post Office Square  
Boston, Massachusetts 02109

PATENT NO. 6,773,892

No. of additional copies

0



Burden Hour Statement: This form is estimated to take 1.0 hour to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22323-1450.

NU-431AX/324089

Page 1 of 4

JUL 29 2005

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,773,892  
DATED : August 10, 2004  
INVENTOR(S) : Richard C. Deth

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

```

<400> 1
Met Gly Asn Arg Ser Thr Ala Asp Ala Asp Gly Leu Leu Ala Gly Arg
 1           5           10           15
Gly Pro Ala Ala Gly Ala Ser Ala Gly Ala Ser Ala Gly Leu Ala Gly
          20           25           30
Gln Gly Ala Ala Ala Leu Val Gly Gly Val Leu Leu Ile Gly Ala Val
          35           40           45
Leu Ala Gly Asn Ser Leu Val Cys Val Ser Val Ala Thr Glu Arg Ala
          50           55           60
Leu Gln Thr Pro Thr Asn Ser Phe Ile Val Ser Leu Ala Ala Ala Asp
          65           70           75           80
Leu Leu Leu Ala Leu Leu Val Leu Pro Leu Phe Val Tyr Ser Glu Val
          85           90           95
Gln Gly Gly Ala Trp Leu Leu Ser Pro Arg Leu Cys Asp Ala Leu Met
          100          105          110
Ala Met Asp Val Ala Leu Cys Thr Ala Ser Ile Phe Asn Leu Cys Ala
          115          120          125
Ile Ser Val Asp Arg Phe Val Ala Val Ala Val Pro Leu Arg Tyr Asn
          130          135          140
Arg Gln Gly Gly Ser Arg Gln Leu Leu Leu Ile Gly Ala Thr Trp
          145          150          155          160
Leu Leu Ser Ala Ala Val Ala Ala Pro Val Leu Cys Gly Leu Asn Asp
          165          170          175
Val Arg Gly Arg Asp Pro Ala Val Cys Arg Leu Glu Asp Arg Asp Tyr
          180          185          190
Val Val Tyr Ser Ser Val Cys Ser Phe Phe Leu Pro Cys Pro Leu Met
          195          200          205
Leu Leu Leu Tyr Trp Ala Thr Phe Arg Gly Leu Gln Arg Trp Glu Val

```

## MAILING ADDRESS OF SENDER:

Weingarten, Schurgin, Gagnebin & Lebovici LLP  
Ten Post Office Square  
Boston, Massachusetts 02109

PATENT NO. 6,773,892

No. of additional copies

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Burden Hour Statement: This form is estimated to take 1:0 hour to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22323-1450.

NU-431AX/324089

Page 2 of 4

JUL 29 2005

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO : 6,773,892  
DATED : August 10, 2004  
INVENTOR(S) : Richard C. Deth

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

210	215	220
Ala Arg Arg Ala Lys Leu His Gly Arg Ala Pro Arg Arg Pro Ser Gly		
225	230	235
Pro Gly Pro Pro Ser Pro Thr Pro Pro Ala Pro Arg Leu Pro Gln Asp		240
	245	250
Pro Cys Gly Pro Asp Cys Ala Pro Pro Ala Pro Gly Leu Pro Pro Asp		255
	260	265
Pro Cys Gly Ser Asn Cys Ala Pro Pro Asp Ala Val Arg Ala Ala Ala		270
	275	280
Leu Pro Pro Gln Thr Pro Pro Gln Thr Arg Arg Arg Arg Arg Ala Lys		285
	290	295
Ile Thr Gly Arg Glu Arg Lys Ala Met Arg Val Leu Pro Val Val Val		300
305	310	315
Gly Ala Phe Leu Leu Cys Trp Thr Pro Phe Phe Val Val His Ile Thr		320
	325	330
Gln Ala Leu Cys Pro Ala Cys Ser Val Pro Pro Arg Leu Val Ser Ala		335
	340	345
Val Thr Trp Leu Gly Tyr Val Asn Ser Ala Leu Asn Pro Val Ile Tyr		350
	355	360
Thr Val Phe Asn Ala Glu Phe Arg Asn Val Phe Arg Lys Ala Leu Arg		365
	370	375
Ala Cys Cys		380
385		

## MAILING ADDRESS OF SENDER:

Weingarten, Schurgin, Gagnebin & Lebovici LLP  
Ten Post Office Square  
Boston, Massachusetts 02109

PATENT NO. 6,773,892

No. of additional copies

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NU-431AX/324089

Page 3 of 4

JUL 29 2005

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UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTIONPATENT NO : 6,773,892  
DATED : August 10, 2004  
INVENTOR(S) : Richard C. Deth

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 10, claim 1, line 4, please insert new claim 1 as follows:

--A method of identifying an agent for treating schizophrenia or a related neuropsychiatric disorder wherein said related neuropsychiatric disorder has the feature of involving modification of dopamine D4 receptor-linked phospholipid methylation and wherein said method comprises the steps of:

(a) establishing an assay system comprising a cultured cell line, said cultured cell line either naturally expressing D4 receptors or transfected with the D4 receptor gene;

(b) making an initial determination of the level of phospholipid methylation in cells of said cell line;

(c) administering to cells of said cell line the candidate agent to be assessed;

(d) making a subsequent determination of the level of phospholipid methylation in cells of said cell line; and

(e) comparing the corresponding levels of phospholipid methylation from steps (b) and (d), wherein an increase in the level of phospholipid methylation subsequent to administration of the candidate agent indicates that the agent is potentially therapeutically effective for treating schizophrenia or said related neuropsychiatric disorder.--.

## MAILING ADDRESS OF SENDER:

Weingarten, Schurgin, Gagnebin & Lebovici LLP  
Ten Post Office Square  
Boston, Massachusetts 02109

PATENT NO. 6,773,892

No. of additional copies

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NU-431AX/324089

Page 4 of 4

JUN 29 2005



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov



## NOTICE OF ALLOWANCE AND FEE(S) DUE

207

03/31/2004

WEINGARTEN, SCHURGIN, GAGNEBIN & LEBOVICI  
LLP  
TEN POST OFFICE SQUARE  
BOSTON, MA 02109

RECEIVED

BY:

APR 02 2004

EXAMINER

WEGERT, SANDRA L

ART UNIT

PAPER NUMBER

1647

DATE MAILED: 03/31/2004

WEINGARTEN, SCHURGIN,  
GAGNEBIN & LEBOVICI LLP

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,103	04/14/2000	Richard C. Deth	NU-431AX	8235

TITLE OF INVENTION: METHODS OF IDENTIFYING AND DETERMINING THE EFFECTIVENESS OF THERAPEUTIC PROCESSES OR AGENTS FOR THE TREATMENT OF SCHIZOPHRENIA AND RELATED DISORDERS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665	\$0	\$665	06/30/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.

☐ Applicant claims SMALL ENTITY status.  
See 37 CFR 1.27.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

29 2005



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,103	04/14/2000	Richard C. Deth	NU-431AX	8235
207	7590	03/31/2004		

WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI  
LLP  
TEN POST OFFICE SQUARE  
BOSTON, MA 02109

EXAMINER	
WEGERT, SANDRA L	

ART UNIT	PAPER NUMBER
1647	

DATE MAILED: 03/31/2004

## Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

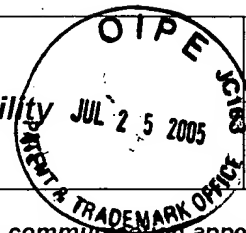
The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.



**Notice of Allowability**

Application No.

09/550,103

Examiner

Sandra Wegert

Applicant(s)

DETH, RICHARD C.

Art Unit

1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/20/03.
2. ☒ The allowed claim(s) is/are 5-9 (renumbered as 1-50).
3. ☒ The drawings filed on 14 April 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

DETAILED ACTION

The affidavit under 37 CFR 1.132, filed 23 October 2003, is sufficient to overcome the rejection of Claims 5-9 based upon 35 USC 112, first paragraph.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Holliday Heine on 23 March 2004.

**The application has been amended as follows:**

Claims 1-4 have been canceled without prejudice.

**The application has been amended as follows:**

Please replace Claim 5 with the following:

5. (Currently Amended) A method of identifying an agent for treating schizophrenia or a related neuropsychiatric disorder wherein said related neuropsychiatric disorder has the feature of involving modification of dopamine D4 receptor-linked phospholipid methylation and wherein said method comprises the steps of:

(a) establishing an assay system comprising a cultured cell line, said cultured cell line either naturally expressing D4 receptors or transfected with the D4 receptor gene;

Art Unit: 1647

(b) making an initial determination of the level of phospholipid methylation in cells of said cell line;

(c) administering to cells of said cell line the candidate agent to be assessed;

(d) making a subsequent determination of the level of phospholipid methylation in cells of said cell line; and

(e) comparing the corresponding levels of phospholipid methylation from steps (b) and

(d), wherein an increase in the level of phospholipid methylation subsequent to administration of the candidate agent indicates that the agent is potentially therapeutically effective for treating schizophrenia or said related neuropsychiatric disorder.

## REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

The Invention of the instant Application is a method of identifying therapeutic agents useful for the treatment of schizophrenia or related neuropsychiatric disorders, by using cultured cell lines transfected with the D4 dopamine receptor gene or by using naturally-occurring cells, such as lymphocytes, comprising the D4 receptor (see, for example: Sharma, et al., 1999, Mol. Psychiatry, 4:235-246.). The Specification describes the relationship between the D4 receptor and phospholipid methylation in cells comprising the receptor. Agents identified by the methods described would be expected to increase the amount of phospholipid methylation to normal levels. The claims are free of the prior art as the method has not been described

Art Unit: 1647

previously, except in the Patent from which the instant Application claims priority (US Patent 6,080,549). The specification provides experimental evidence of utility and enablement under 35 U.S.C. 112, first paragraph. The claims also meet 35 U.S.C. 112- second paragraph requirements because the claims point out and distinctly claim the invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Advisory information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra Wegert whose telephone number is (571) 272-0895. The examiner can normally be reached Monday - Friday from 9:00 AM to 5:00 PM (Eastern Time). If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Gary Kunz, can be reached at (571) 272-0887.

The fax number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Application/Control Number: 09/550,103

Page 5

Art Unit: 1647

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SLW

23 March 2004

*Elizabeth C. Kemmerer*

ELIZABETH KEMMERER  
PRIMARY EXAMINER



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application : Richard C. Deth  
Application No. : 09/550,103  
Filed : April 14, 2000  
For : METHODS IDENTIFYING AND DETERMINING THE  
EFFECTIVENESS OF THERAPEUTIC PROCESSES  
OR AGENTS FOR THE TREATMENT OF  
SCHIZOPHRENIA AND RELATED DISORDERS  
Examiner : Turner, S.  
Attorney's Docket : NU-431AX

Group Art Unit: 1647

\* \* \* \* \*  
I hereby certify that this correspondence is being deposited with  
the United States Postal Service as first class mail in an  
envelope addressed to: Box Sequence, Commissioner for Patents,  
Washington, D.C. 20231 on Aug. 22, 2001.

By Holliday C. Heine  
Holliday C. Heine, Ph.D.  
Registration No. 34,346  
Attorney for Applicants

\* \* \* \* \*

SUBMISSION OF SEQUENCE LISTING

Box Sequence  
Commissioner for Patents  
Washington, D.C. 20231

Sir:

In response to the communication from the Examiner dated  
June 22, 2001 (copy enclosed), enclosed herewith is a Sequence  
Listing for the above-identified patent application, including the  
following items:

- a computer readable form (CFR) copy of the Sequence Listing
- a paper copy of the Sequence Listing

Appl. No.: 09/550,103  
Filed: April 14, 2000  
Group Art Unit: 1647

an amendment directing entry of the Sequence Listing into the specification

The undersigned Applicants' representative hereby states that the contents of the paper and computer readable copies are the same and include no new matter as required by 37 CFR 1.821(e) (f) (g) and 1.825(b) (d). The General Information portion of the sequence listing has been updated so as to contain information pertaining to the present application and to the priority application being claimed.

Respectfully submitted,

RICHARD C. DETH

By Holliday C. Heine  
Holliday C. Heine, Ph.D.  
Registration No. 34,346  
Attorney for Applicants

WEINGARTEN, SCHURGIN, GAGNEBIN  
& HAYES LLP  
Ten Post Office Square  
Boston, Massachusetts 02109

Telephone: (617) 542-2290  
Telecopier: (617) 451-0313

HCH/raw  
Enclosures  
256996-1



## SEQUENCE LISTING

<110> ~~DECA~~, Richard C.<120> METHODS OF IDENTIFYING AND DETERMINING  
THE EFFECTIVENESS OF THERAPEUTIC PROCESSES OR AGENTS FOR THE  
TREATMENT OF SCHIZOPHRENIA AND RELATED DISORDERS

&lt;130&gt; NU-431AX

&lt;140&gt; 09/550,103

&lt;141&gt; 2000-04-14

&lt;150&gt; 08/833,703

&lt;151&gt; 1997-08-08

&lt;160&gt; 1

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 387

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 1

Met	Gly	Asn	Arg	Ser	Thr	Ala	Asp	Ala	Asp	Gly	Leu	Leu	Ala	Gly	Arg
1				5					10					15	
Gly	Pro	Ala	Ala	Gly	Ala	Ser	Ala	Gly	Ala	Ser	Ala	Gly	Leu	Ala	Gly
			20					25					30		
Gln	Gly	Ala	Ala	Ala	Leu	Val	Gly	Gly	Val	Leu	Leu	Ile	Gly	Ala	Val
			35				40					45			
Leu	Ala	Gly	Asn	Ser	Leu	Val	Cys	Val	Ser	Val	Ala	Thr	Glu	Arg	Ala
			50			55					60				
Leu	Gln	Thr	Pro	Thr	Asn	Ser	Phe	Ile	Val	Ser	Leu	Ala	Ala	Ala	Asp
65					70					75				80	
Leu	Leu	Leu	Ala	Leu	Leu	Val	Leu	Pro	Leu	Phe	Val	Tyr	Ser	Glu	Val
			85						90					95	
Gln	Gly	Gly	Ala	Trp	Leu	Leu	Ser	Pro	Arg	Leu	Cys	Asp	Ala	Leu	Met
			100					105					110		
Ala	Met	Asp	Val	Ala	Leu	Cys	Thr	Ala	Ser	Ile	Phe	Asn	Leu	Cys	Ala
		115					120					125			
Ile	Ser	Val	Asp	Arg	Phe	Val	Ala	Val	Ala	Val	Pro	Leu	Arg	Tyr	Asn
		130				135					140				
Arg	Gln	Gly	Gly	Ser	Arg	Arg	Gln	Leu	Leu	Leu	Ile	Gly	Ala	Thr	Trp
145					150					155					160
Leu	Leu	Ser	Ala	Ala	Val	Ala	Ala	Pro	Val	Leu	Cys	Gly	Leu	Asn	Asp
			165						170					175	
Val	Arg	Gly	Arg	Asp	Pro	Ala	Val	Cys	Arg	Leu	Glu	Asp	Arg	Asp	Tyr
			180					185					190		
Val	Val	Tyr	Ser	Ser	Val	Cys	Ser	Phe	Phe	Leu	Pro	Cys	Pro	Leu	Met
		195				200						205			
Leu	Leu	Leu	Tyr	Trp	Ala	Thr	Phe	Arg	Gly	Leu	Gln	Arg	Trp	Glu	Val



210		215		220
Ala Arg Arg Ala Lys	Leu His Gly Arg Ala	Pro Arg Arg Pro Ser Gly		
225	230	235		240
Pro Gly Pro Pro Ser	Pro Thr Pro Pro Ala	Pro Arg Leu Pro Gln Asp		
	245	250		255
Pro Cys Gly Pro Asp	Cys Ala Pro Pro Ala	Pro Gly Leu Pro Pro Asp		
	260	265		270
Pro Cys Gly Ser Asn	Cys Ala Pro Pro Asp	Ala Val Arg Ala Ala Ala		
	275	280		285
Leu Pro Pro Gln Thr	Pro Pro Gln Thr Arg	Arg Arg Arg Arg Ala Lys		
	290	295		300
Ile Thr Gly Arg Glu	Arg Lys Ala Met Arg	Val Leu Pro Val Val Val		
305	310	315		320
Gly Ala Phe Leu Leu	Cys Trp Thr Pro Phe	Phe Val Val His Ile Thr		
	325	330		335
Gln Ala Leu Cys Pro	Ala Cys Ser Val Pro	Pro Arg Leu Val Ser Ala		
	340	345		350
Val Thr Trp Leu Gly	Tyr Val Asn Ser Ala	Leu Asn Pro Val Ile Tyr		
	355	360		365
Thr Val Phe Asn Ala	Glu Phe Arg Asn Val	Phe Arg Lys Ala Leu Arg		
	370	375		380
Ala Cys Cys				
385				